MODIS Technical Team Meeting
Thursday, April 25, 2002
Building 33, Room E125

Vince Salomonson chaired the meeting. Present were Ed Masuoka, Wayne Esaias, Bill Barnes, Jack Xiong, Barbara Conboy, Skip Reber, Steve Kempler, Michael King, Robert Wolfe, Dorothy Hall, and Shaida Johnson, with David Herring taking the minutes.

1.0 Upcoming Meetings

- AGU, Spring, May 28-Jun 1, Washington, D.C.
- AMS, Atmospheric Radiation and Atmospheric Physics, first week of June, Odgen, Utah.
- MODIS Outreach Workshop on Land Cover Variables, June 3-4, University of Maryland, College Park.
- IGARSS 2002, June 24-28, 2002 in Toronto (abstract deadline past)
- MODIS Outreach Workshop on MODIS Vegetation Variables (VI/LAI/FPAR/NPP), July 15-19th 2002, University of Montana, Missoula, MT
- MODIS Science Team Meeting, July 22-24, 2002
- Remote Sensing of the Earth's Environment from Terra, a workshop at the International Summer School on Atmospheric and Oceanic Sciences, August 25-30, 2002, L'Aquila Italy
- 34TH COSPAR Scientific Assembly, October 10-19, 2002, in Houston, TX, (abstracts due 1 May)
- MODIS Outreach Workshop on Land Surface Radiation Products, October 24-25, 2002, Boston

2.0 Meeting Minutes

2.1 Instrument Updates

Barnes reported that they are still working on the issue of EEPROMS. Salomonson reported that Roger Drake, SBRS, said to go ahead and write the one-word patches onto the EEPROMS, as it would be more disadvantageous not to. Barnes said that MODIS has experienced 3-4 krads of radiation on orbit, and the GSFC radiation personnel have declared that the memory (EEPROMS) can't be written to past that amount. Drake, however, has looked at SBRS records and found that SBRS sent five pieces to GSFC to be radiation tested in 1998, and none failed after 20 krads.

Salomonson said the counter argument is if we don't do this, we may not be able to get the patches re-installed due to the increased reset rate and Formatter A would be useless. Barnes said that a noisy data line is likely the cause of the formatter resets. This problem was fixed on Aqua. [Aqua was launched on May 4 and all systems appear to be nominal. MODIS electronics were turned on and all three doors were unlatched on May 6.]

2.2 Data Processing

Kempler reported that with respect to Salomonson's request for the DAAC to look at the feasibility of producing the subsampled data during the upcoming Ocean products

reprocessing, they have a found a workable solution to that. Kempler reported that he had sent around a paper on the data pool idea to some folks for review. The DAAC implemented a short-term fix to the problem of people ordering data repetitively that involved contacting folks directly and discussing individual solutions. Kempler added that they finally got access to a test environment at Landover to see how the system reacts to various inputs, and they should be able to build a permanent fix there.

The DAAC is processing well in the forward direction as well as reprocessing data from 2000. They are catching up quickly, and are seeing good throughput rates. Distribution has not been a problem since they implemented the fix. King asked about the status of MOD07 (PGE03). Kempler said he was not sure and would look into it.

Herring reported on the great popularity of the MODIS Blue Marble images. We are getting a lot of requests for that—hundreds of requests per day, initially. The demand completely choked the server hosting the Visible Earth (http://visibleearth.nasa.gov) and so the system administrators were advised to constrain access to only twelve per day. Instead, the VE has been serving 50 requests per day, but is still falling behind. Masuoka said that given the Blue Marble's popularity, the community should be able to come up with a solution to support it. Herring will work with Masuoka and the LTP Computing Facility to set up mirror sites to support the demand.

Masuoka reported that the SIPS ICD was sent to Stan Scott and is now waiting to go to the configuration control board. They will approve final data volumes for Aqua in the ICD after the engineering analysis is completed for increasing Aqua data volumes as part of this year's SWGD earmark. Masuoka said that he had talked with Mike Moore about adding the 17 GB/day L1A subset archived to make it easier to do Oceans reprocessing. Masuoka reported that with respect to data ordering and searching, he and Robert Wolfe had met with Graham Bothwell to talk about what should be done with the $1.5M earmark to improve distribution of Terra and Aqua products. Salomonson wondered if this would help the development of Sarah Graves' subsetter tool. Kempler said that was a separate issue. Masuoka said that the SWGD will need to provide Bob Menrad with a white paper in the next month or so on proposed spending to solve issues with distribution.
Salomonson said that they hope to have the IGS data set ready by the end of May. It looks like nearly a clear majority of the MODIS products will be validated by fall. So our push ought to be to get data distribution issues resolved as quickly as possible. Many folks said they are getting MODIS data and really like it. We have on order of 10 products validated out of 40 now.

Masuoka said that he had received an email from Martha Maiden a workshop organized by Dr. Jeff Dozier on what new technologies in the commercial or academic sector will help EOSDIS with the distribution of products from the DAACs to the public. The meeting will be held April 30 – May 1.

Johnston said that often it sounds like many folks are coming at the issues of data distribution and user interface issues from different angles. At some point someone should round up all these ideas and approaches. Salomonson thought that would be Bob Menrad's responsibility.

Masuoka said that he will send a note to Mike Moore of the ESDIS Project to request that the MODAPS production systems (mtvs1 and mtvs2) be allowed to attach directly to the Storage Area Network (SAN) at the GES DAAC that includes the disk storage for the data pools. This approach would reduce network traffic and improve the speed at which data could be sent from the data pools to the MODAPS disks. Security concerns, however, may preclude this.

2.3 Atmosphere Update

King reported that he is working on a paper for the Aqua special issue of *IEEE Transactions on Geoscience and Remote Sensing*. He said that they have been finding some artifacts in data products not anticipated previously. They have found inconsistencies in cloud measurements over the Andes. Steve Ackerman had turned off the 1.38 μm thin cirrus test in the algorithm so clouds over certain regions were being incorrectly flagged in terms of phase and cloud mask. Salomonson asked if King had any new information on the recompetition schedule, which last he heard was to release the RFP this summer, with responses due in December. King didn't have any new information.

2.4 EOSDIS Update

Reber reported that their Web page was almost ready to be back on line. There are some problems with the new computer, and they are now facing the lock-down imposed on Bldg 32 computer equipment configuration changes within the week prior to Aqua launch. Salomonson said that with respect to validated products, Reber's page doesn't reflect back to the MODIS Web page. He was concerned that there is no way on those pages to make specific comments. Reber said there is some information on web pages, but that he suspects the Web page he's doing isn't the appropriate place to have that detailed information.

2.5 Oceans Update

Esaias reported that the Oceans team is busy looking at test data. They are a couple of issues they are working, but they still think they can make delivery next Friday. They will probably make another delivery of the primary productivity PGE due to flag problems. Esaias also reported that HQ is following OMB metrics and progress updates once per month with fever charts. He had arranged a telecon to discuss fluorescence on Tuesday with Chuck Trees. Esaias reported that Frank Hoge has good data validating MODIS fluorescence. Hoge has three or four flight lines of the Airborne Oceanographic Lidar overlaid on MODIS data and they exhibit very good agreement. With respect to merging SeaWiFS data with MODIS, they have done tests and Gene Feldman has the software ready to go. The goal was to get 24% daily global coverage, but the result will be 46%. He said Chuck Trees will indicate we have exceeded the metric.

2.6 MAST Update

Conboy reported that the next MODIS Science Team Meeting will be July 22-24 at the Greenbelt Marriott. The Discipline Groups and MCST will meet on the first day and the plenary will be on the 23rd and 24th. Paul Menzel will chair the Atmosphere meeting, as King will be on travel. Esaias said Oceans would like to present a talk on fluorescence at the MODIS Science Team Meeting.

Conboy announced that Yolanda Harvey is the new hire to replace Rebecca Lindsey. She reports to work on May 7. Yolanda has been pursuing her masters degree in science writing at Carnegie Melon University.

2.7 Cryosphere
Hall reported that they are receiving data from GDAAC within 2 hours of request.

3.0 Action Items

3.1 Discipline leads to meet to resolve the issue of beta-release code and science-quality code, and what we need to say about it.
Status: Open.

3.2 Technical team to discuss further the issue of predicted ephemeris data and how to improve it.
Status: Open.